

CLAIMS

1.The voice over internet protocol device capable of auto-selectively dialing up public switch telephone network or internet phone, said voice over internet protocol device mainly includes:

5 at least one line transfer switch, which connect with a terminal apparatus respectively to receive the voice signal produced by said terminal apparatus;

a control circuit, which is used to control each component in the entire device, and proceeds with packet process for the signal received to produce corresponding internet protocol packet; and the control circuit connects with the line transfer switch to
10 produce a trigger signal aiming at the setting and power supply status, which makes said line transfer switches proceed transfer operation;

a rectifier, which connects with said control circuit to supply the said control circuit the power required for its normal operation;

at least one subscriber line interface circuit, which connect respectively with said
15 line transfer switches and said control circuit to transform the voice signal transmitted from said terminal apparatus to digital signal, then transmit to said control circuit to proceed packet process;

at least on phone detection circuit, which connect respectively with said line transfer switches and said control circuit to detect the employment status of said
20 terminal apparatus;

a ringing detection circuit, which connect respectively with said line transfer switches and a loop to detect the in-coming call ringing signal transmitted from public switch telephone network through said loop, and while said in-coming call ringing signal is detected, according to the employment status of said terminal apparatus
25 detected by said phone detection circuits, said control circuit can be ordered to trigger a signal to transfer said line transfer switches, which makes the unused terminal apparatus

can be auto-transferred to the status which connects with said loop to receive said ringing signal, and when said terminal apparatus is picked up, which can proceed communication with remote terminal apparatus through said public switch telephone network.

5 2.The voice over internet protocol device capable of auto-selectively dialing up public switch telephone network or internet phone according to Claim 1, wherein there are a plurality of signal contacts equipped on said line transfer switch, wherein a first signal contact connects with said terminal apparatus, and a second signal contact connects with said subscriber line interface circuit, such that while said control circuit is in normal power supply status, which can produce a trigger signal to make said signal contacts maintain in electric connection status.

10 3.The voice over internet protocol device capable of auto-selectively dialing up public switch telephone network or internet phone according to Claim 2, wherein there is a third signal contact equipped on said line transfer switch, said third signal contact can connect with said public switch telephone network through said loop, such that while the power supply for said control circuit is broken, a signal can be triggered to make first and second signal contacts be in open status, and makes said third signal contact be transferred to electric connection status with said first signal contact.

15 4.The processing method for the voice over internet protocol device capable of auto-selectively dialing up public switch telephone network or internet phone, said voice over internet protocol device can base on preset operation mode to detect if there is an in-coming call ringing signal transmitted from public switch telephone network thereon, if there is one, then the employment status of at least one terminal apparatus connected with said voice over internet protocol device can be based on making unused terminal apparatus be transferred to a loop which the said public switch telephone network is connected thereon.

5. The processing method for the voice over internet protocol device capable of auto-selectively dialing up public switch telephone network or internet phone according to Claim 4, wherein when the ringing signal disappears and said terminal apparatus is in idle status again, said voice over internet protocol device can make said terminal apparatus be transferred to the status which connects with a subscriber line interface circuit thereon to connect with internet through said subscriber line interface circuit.

6. The processing method for the voice over internet protocol device capable of auto-selectively dialing up public switch telephone network or internet phone according to Claim 5, wherein said voice over internet protocol device can aim at the phone number dialed in said terminal apparatus to judge that the dialed phone of said terminal apparatus belongs to a public switch telephone network or an internet phone, such that said voice over internet protocol device can base on which to transfer said terminal apparatus to the status which connects with said loop of said subscriber line interface circuit.